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PCT09

RAW SEQUENCE LISTING

DATE: 01/19/2002

PATENT APPLICATION: US/09/700,712

TIME: 11:55:42

Input Set : A:\29772SEQ1.txt.txt

Output Set: N:\CRF3\01182002\I700712.raw

ENTERED

090041440060
C-->

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4 <110> APPLICANT: SBL Vaccin AB
6 <120> TITLE OF INVENTION: Method of producing thy A- strains of Vibrio cholerae,
7     such strains and their use.
9 <130> FILE REFERENCE: 29772
11 <140> CURRENT APPLICATION NUMBER: US 09/700,712
12 <141> CURRENT FILING DATE: 2001-11-13
14 <150> PRIOR APPLICATION NUMBER: SE 9801852-6
15 <151> PRIOR FILING DATE: 1998-05-26
17 <160> NUMBER OF SEQ ID NOS: 5
19 <170> SOFTWARE: PatentIn Ver. 2.1
21 <210> SEQ ID NO: 1
22 <211> LENGTH: 2909
23 <212> TYPE: DNA
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29 tgctatgtgg ttggccaatc gccgagcgga tcgcgcgggc agtggttggg cgcgtgagca 180
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37 tggtaaacct cgtccgctag gcagcgtatc cggactgttt ttagctggat acggtacatt 660
38 ccgcttccct gtggaatacg tccgtgagcc agatgctcag ttgggtctgt ttgggtggctt 720
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40 ttggtcttac aagcgcgggt tgtatcaaga ccgtgtagca gcaaaatagg gtagttaggt 840
41 gaaacagtat ttagatcttt gtcagcgcat cgtcgatcaa ggtgtttggg ttgaaaatga 900
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43 caatcagttt cctctagtga ctacacgcaa gagtttttgg aaagctgccg tagccgagtt 1020
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52 catttaccaa gatcaactcg aattgatgcg cgatgtgcag ctaaaacgtg agccattccc 1560
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57 aatgctgccg gggatgacga caaacacacc caataagtaa ctcaccacca ccattttgct 1860
58 cttacaagcc caagttgaga tgagctcagc acctttaata ggcagttcgc gtaagaaagg 1920
59 aataccgtaa atcaagaccg tagccatcaa gttaaaagctt aagtgcacca gcgcaatttg 1980
60 cagagcaaac acggcaaact caccagagac agcggttgcg gcgagcagag cagtaataca 2040
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62 gcccacgaga ggaaccatta ggctggttgt ggtcgatgaa gattgaacta ataccgtaac 2160
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68 taaaatgcca aacatcattt cttagggtag gaagatcagc accgcgagaa gattgaaaaa 2520
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72 tgaggattga atcagtgcgg ttgccactaa accaatcadc aatcctgcaa ttgggtggga 2760
73 agcaaattca aatagaactt tggcttgatc gccggttgcc catttaaaac cgctgccgac 2820
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86 tgcctatgtg ttggccaatc gccgagcggg tcgcgcgggg agtggttggg cgcgtgagca 180
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94 tggtaaacct cgtccgctag gcagcgatc cggactgttt ttagctggat acggtacatt 660
95 ccgcttcctt gtggaatacg tccgtgagcc agatgctcag ttgggtctgt ttggtggctt 720
96 catttcaatg gggcaaatcc tctccttacc tatggtgatc atcggtatct tgatgatggt 780
97 ttggtcttac aagcgcgggt tgtatcaaga ccgtgtagca gcaaaatagg gtagttag 838
100 <210> SEQ ID NO: 3
101 <211> LENGTH: 1222
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103 <213> ORGANISM: Vibrio cholerae
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108 ccggggatga cgacaaacac acccaataag taactcacca ccaccatttt gctcttaca 180
109 gcccaagttg agatgagctc agcaccttta ataggcagtt cgcgtaagaa aggaataccg 240

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112 atgttcgcac ctaaggtaaa tgggtagatt tcacgcactt tcagcacgcc agagcccacg 420
113 agaggaacca ttaggctggt tgtggtcgat gaagattgaa ctaataccgt aaccactgta 480
114 cctgaagcaa tacggtgtag tgggcctcgg ccaatcgcat tttgtagaat ttcacgtgcg 540
115 cggccaacca tcaaactctt catcagtttg cccatcaccg taatggcgac gaaaatggtc 600
116 gcaataccca atacgataag tgcgacacca ccgaaagtat taccgaatac cgaaagctgg 660
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139 20 25 30
141 Ala Asp Leu Thr Tyr Asp Val Gly Asn Asn Gln Phe Pro Leu Val Thr
142 35 40 45
144 Thr Arg Lys Ser Phe Trp Lys Ala Ala Val Ala Glu Leu Leu Gly Tyr
145 50 55 60
147 Ile Arg Gly Tyr Asp Asn Ala Ala Asp Phe Arg Gln Leu Gly Thr Lys
148 65 70 75 80
150 Thr Trp Asp Ala Asn Ala Asn Leu Asn Gln Ala Trp Leu Asn Asn Pro
151 85 90 95
153 Tyr Arg Lys Gly Glu Asp Asp Met Gly Arg Val Tyr Gly Val Gln Gly
154 100 105 110
156 Arg Ala Trp Ala Lys Pro Asp Gly Gly His Ile Asp Gln Leu Lys Lys
157 115 120 125
159 Ile Val Asp Asp Leu Ser Arg Gly Val Asp Asp Arg Gly Glu Ile Leu
160 130 135 140
162 Asn Phe Tyr Asn Pro Gly Glu Phe His Met Gly Cys Leu Arg Pro Cys
163 145 150 155 160
165 Met Tyr Ser His His Phe Ser Leu Leu Gly Asp Thr Leu Tyr Leu Asn
166 165 170 175
168 Ser Thr Gln Arg Ser Cys Asp Val Pro Leu Gly Leu Asn Phe Asn Met
169 180 185 190
171 Val Gln Val Tyr Val Phe Leu Ala Leu Met Ala Gln Ile Thr Gly Lys
172 195 200 205
174 Lys Pro Gly Leu Ala Tyr His Lys Ile Val Asn Ala His Ile Tyr Gln

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175 210 215 220
 177 Asp Gln Leu Glu Leu Met Arg Asp Val Gln Leu Lys Arg Glu Pro Phe
 178 225 230 235 240
 180 Pro Ala Pro Gln Phe His Ile Asn Pro Lys Ile Lys Thr Leu Gln Asp
 181 245 250 255
 183 Leu Glu Thr Trp Val Thr Leu Asp Asp Phe Asp Val Thr Gly Tyr Gln
 184 260 265 270
 186 Phe His Asp Pro Ile Gln Tyr Pro Phe Ser Val
 187 275 280
 191 <210> SEQ ID NO: 5
 192 <211> LENGTH: 271
 193 <212> TYPE: PRT
 194 <213> ORGANISM: Vibrio cholerae
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 201 20 25 30
 203 Gly Phe Leu Phe Ala Met Trp Leu Ala Asn Arg Arg Ala Asp Arg Ala
 204 35 40 45
 206 Gly Ser Gly Trp Thr Arg Glu Gln Val Ser Asp Leu Leu Phe Ala Gly
 207 50 55 60
 209 Phe Leu Gly Val Val Ile Gly Gly Arg Val Gly Tyr Val Ile Phe Tyr
 210 65 70 75 80
 212 Asn Phe Asp Leu Phe Leu Ala Asp Pro Leu Tyr Leu Phe Lys Val Trp
 213 85 90 95
 215 Thr Gly Gly Met Ser Phe His Gly Gly Leu Leu Gly Val Ile Thr Ala
 216 100 105 110
 218 Met Phe Trp Tyr Ala Arg Lys Asn Gln Arg Thr Phe Phe Gly Val Ala
 219 115 120 125
 221 Asp Phe Val Ala Pro Leu Val Pro Phe Gly Leu Gly Met Gly Arg Ile
 222 130 135 140
 224 Gly Asn Phe Met Asn Ser Glu Leu Trp Gly Arg Val Thr Asp Val Pro
 225 145 150 155 160
 227 Trp Ala Phe Val Phe Pro Asn Gly Gly Pro Leu Pro Arg His Pro Ser
 228 165 170 175
 230 Gln Leu Tyr Glu Phe Ala Leu Glu Gly Val Val Leu Phe Phe Ile Leu
 231 180 185 190
 233 Asn Trp Phe Ile Gly Lys Pro Arg Pro Leu Gly Ser Val Ser Gly Leu
 234 195 200 205
 236 Phe Leu Ala Gly Tyr Gly Thr Phe Arg Phe Leu Val Glu Tyr Val Arg
 237 210 215 220
 239 Glu Pro Asp Ala Gln Leu Gly Leu Phe Gly Gly Phe Ile Ser Met Gly
 240 225 230 235 240
 242 Gln Ile Leu Ser Leu Pro Met Val Ile Ile Gly Ile Leu Met Met Val
 243 245 250 255
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VERIFICATION SUMMARY

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Input Set : A:\29772SEQ1.txt.txt

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L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date

09700712.14301
FOEFF" 27200260